

## Task 1

```
main.py
1 class money:
2
3     def __init__(self, amount: int = 0, denomination: str = "Unknown"):
4         self.amount = amount
5         self.denomination = denomination
6
7     def __str__(self):
8         return f"Amount is: {self.amount}\nDenomination: {self.denomination}"
9
10    def __getitem__(self, key):
11        if key == 0:
12            return f"{self.amount}"
13        elif key == "":
14            return f"{self.denomination}"
15        else:
16            return ""
17
18    #from Act import money I cant run it on a different file because it's not pycharm
19
20
21
22    def test(self):
23        self.wallet = money()
24        self.wallet2 = money(100)
25        self.wallet3 = money(100, "USD")
26
27        print("Action: Invoking the Money class constructor using Money()\nOutput")
28        print(self.wallet)
29        print("\nAction: Invoking the Money class constructor using Money(100)\nOutput:")
30        print(self.wallet2)
31        print("\nAction: Invoking the Money class constructor using Money(100, \"USD\")\nOutput:")
32        print(self.wallet3)
33
34
35    if __name__ == '__main__':
36        test(money)
```

## Output

```
input
Action: Invoking the Money class constructor using Money()
Output
Amount is: 0
Denomination: Unknown

Action: Invoking the Money class constructor using Money(100)
Output:
Amount is: 100
Denomination: Unknown

Action: Invoking the Money class constructor using Money(100, "USD")
Output:
Amount is: 100
Denomination: USD
```

```

class Student:
    def __init__(self, id_number: int = 0, name: str = "Unknown", course: str = "Unknown"):
        self.id_number = id_number
        self.name = name
        self.course = course

    def __str__(self):
        return f"{self.id_number} - {self.name} - {self.course}"

    def validate_info(self):
        if self.name.isalpha() == True and len(self.id_number) <= 9:
            print("Student Information is valid")
        else:
            print("Student information is not valid")
#from student import Student not pycharm

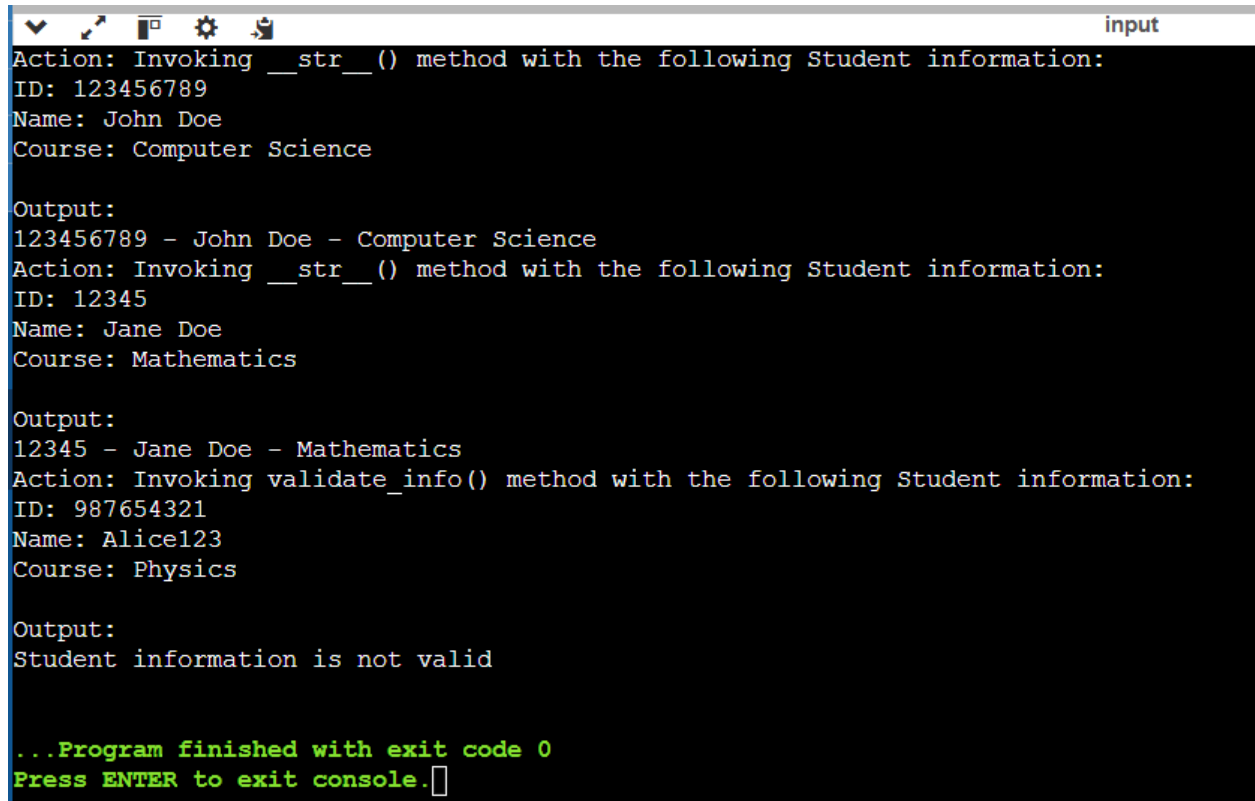
def main(self):
    print("Action: Invoking __str__() method with the following Student information:")
    s1 = Student(123456789, "John Doe", "Computer Science")
    print("ID:", s1.id_number)
    print("Name:", s1.name)
    print("Course:", s1.course)
    print("\nOutput:")
    print(s1)

    print("Action: Invoking __str__() method with the following Student information:")
    s2 = Student(12345, "Jane Doe", "Mathematics")
    print("ID:", s2.id_number)
    print("Name:", s2.name)
    print("Course:", s2.course)
    print("\nOutput:")
    print(s2)

    print("Action: Invoking validate_info() method with the following Student information:")
    s3 = Student(987654321, "Alice123", "Physics")
    print("ID:", s3.id_number)
    print("Name:", s3.name)
    print("Course:", s3.course)
    print("\nOutput:")
    s3.validate_info()

```

```
if __name__ == '__main__':  
    main(Student)
```



```
input  
Action: Invoking __str__() method with the following Student information:  
ID: 123456789  
Name: John Doe  
Course: Computer Science  
  
Output:  
123456789 - John Doe - Computer Science  
Action: Invoking __str__() method with the following Student information:  
ID: 12345  
Name: Jane Doe  
Course: Mathematics  
  
Output:  
12345 - Jane Doe - Mathematics  
Action: Invoking validate_info() method with the following Student information:  
ID: 987654321  
Name: Alice123  
Course: Physics  
  
Output:  
Student information is not valid  
  
...Program finished with exit code 0  
Press ENTER to exit console.
```